



**THE DATASHEET OF  
XR46110IHBTR**





# XR46110 Product Brief

## LED Current Controller with Line Regulation Compensation

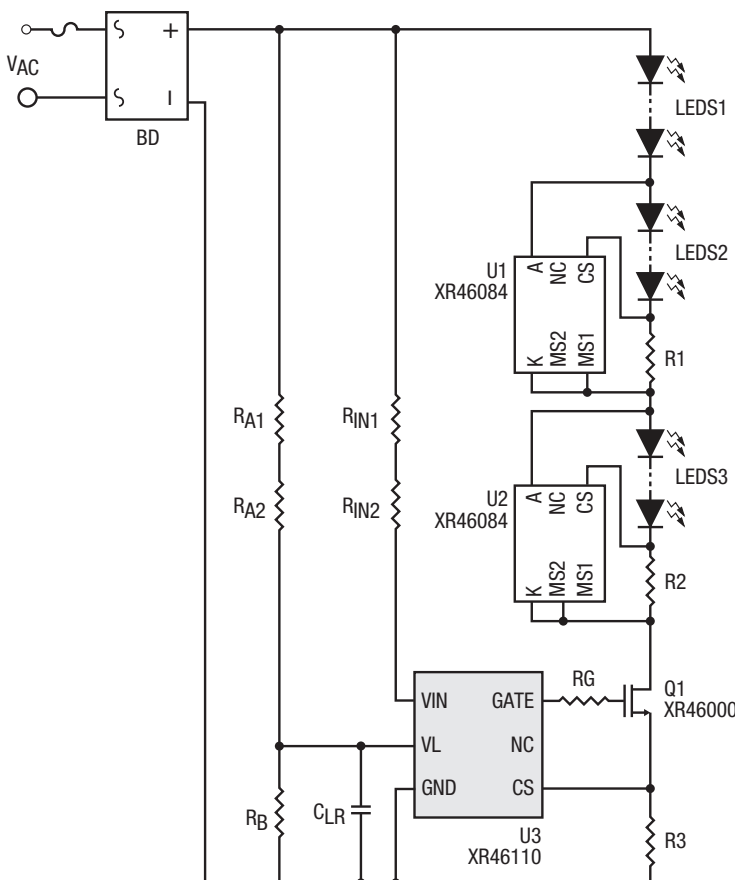
### Description

The XR46110 is an LED current controller with line regulation compensation for operating over a wide alternative current (AC) voltage source range. It can drive an external N-channel power MOSFET to regulate the current flowing through a high voltage (HV) LED string.

The application of the XR46110 is configured in series with an LED string, working as a constant current sink with linear type overvoltage protection (OVP), linear type over temperature protection (OTP), and line regulation compensation. It is suitable for applications with a rectified AC voltage source.

The PCB design can be very compact to meet various shape requirements. It is especially suitable for replacing incandescent light bulb and linear type fluorescent lamps.

### Typical Application



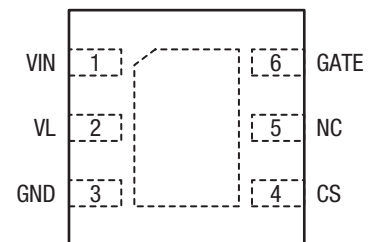
### FEATURES

- Device
  - 6V to 78V chip supply voltage range
  - Excellent system power regulation in  $\pm 10\%$  AC mains fluctuation
  - Over temperature protection
  - Overvoltage protection
  - Single board LED lighting solution available
  - 2mm x 2mm TDFN-6L package
- System
  - All solid state components
  - No electrolytic capacitor required
  - Scalable architecture allows optimization of performance vs. cost
  - Driver-on-board and chip-on-board design solution available which minimize process flow and assembly cost
  - High PF and low THD performance
  - Flexible PCB layout options

### APPLICATIONS

- LED Lighting Applications
  - Downlight
  - High bay
  - Specialty
  - Architectural

### Pin Configuration



2mm x 2mm TDFN-6

## Ordering Information<sup>(1)</sup>

Part Number	Operating Temperature Range	Lead-Free	Package	Packaging Method
XR46110IHBTR	-40°C ≤ T <sub>J</sub> ≤ 125°C	Yes <sup>(2)</sup>	TDFN6 2x2	Tape and reel

**NOTE:**

1. Refer to [www.exar.com/XR46110](http://www.exar.com/XR46110) for most up-to-date Ordering Information.
2. Visit [www.exar.com](http://www.exar.com) for additional information on Environmental Rating.

Please contact [LEDtechsupport@exar.com](mailto:LEDtechsupport@exar.com) to request a complete datasheet.



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